

Appl. No. 09/497,774
Amdt. dated 2/17/2004
Reply to the Office Action of 09/17/2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend Claims 1, 12-14, 22, 28, 33, 34, and 47, and cancel Claims 15-16, 20, and 42-46 without prejudice, and add new Claim 48, as follows.

1. (currently amended): A system for transmitting data in a data stream to grouped recipients, comprising:
 - a server, for receiving users' requests for transmission of user requested data in a data flow for reception by said users;
 - said server for transmission of at least one data stream, and, responsive to said users' requests, for arranging said users in at least one group of recipients of a respective data stream of the at least one data stream, with each user being arranged in a respective group of the at least one group, and wherein each respective group for receiving said user requested data in said respective data stream corresponding to a point of transmission of said data flow; and
 - said server, responsive to the arrangement of said users in said at least one group, for transmitting said user requested data in said respective data stream to each said respective group, and wherein the server for realigning a respective user from a first respective group corresponding to receiving user requested data at a first location in the respective data stream to a second respective group corresponding to receiving user requested data at a second location in the data stream, the second location being selected by the server to change the location in the data stream the respective user is receiving user requested data to any location in the data stream other than the first location in the data stream.
2. (previously presented): The system of Claim 1, wherein, said server realigns a respective user with said respective data stream to change the relative position of said respective

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user to the data being transmitted in said respective data stream, responsive to a signal from said respective user.

3. (original): The system of Claim 1, wherein, said server arranges said users into said groups arranged by the size of said group.
4. (original): The system of Claim 1, wherein, said server arranges said users into said groups arranged by a time interval for assembling said group.
5. (original): The system of Claim 1, wherein, said server is limited to a maximum number of said groups and arranges said groups in relation to said maximum number.
6. (original): The system of Claim 1, wherein, said telecommunication medium is the Internet.
7. (original): The system of Claim 1, wherein, said user's requests are received from a world wide web browser.
8. (original): The system of Claim 1, wherein,
said data is transmitted with identifiable locations in said data stream;
said server identifying a respective identifiable location in said data stream corresponding to said request; and
said server, moving said respective user to another of said groups receiving said data stream from another location in said data stream related to said respective identifiable location.
9. (original): The system of Claim 8 wherein, said related location is advanced in time of transmission of said data stream relative to said respective identifiable location.
10. (original): The system of Claim 8, wherein, said related location is delayed in time of transmission of said data stream, relative to said respective identifiable location.

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11. (original): The system of Claim 8, wherein,

said server has a plurality of ports and with each said group connected to a respective port for receiving said data stream from separate respective locations in said data stream through a respective port; and

said server, moving said user to a said separate respective location in said data stream by reconnecting said user to another of said respective ports.

12. (currently amended): The system of Claim 48 1, wherein,

said server has a plurality of respective ports;

said server is connected to users and said groups through separate respective ports; and

said server realigning a respective user with said data stream to change ~~the data stream~~
~~location said user is receiving said data or to change~~ the time in the transmission of said data stream said user is receiving said transmission, by reconnecting said user to another of said respective ports.

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13. (currently amended): The system of Claim 12, wherein,
said respective ports have a plurality of respective sockets and said users are connected to respective sockets;

said server has a plurality of pointers into separate respective locations in said data store associated with respective sockets, for sending data from said separate respective locations in said data store to said respective sockets and to said respective users with said respective sockets; and

said server realigning a respective user with said data stream to change ~~the location in said data stream said user is receiving said data or~~ the time in the transmission in said data stream said user is receiving said data, by reconnecting said respective user to another respective socket connected to another respective pointer.

14. (currently amended): The system of Claim 12, wherein
said ports have a plurality of respective sockets and said respective users are connected to respective sockets;

said server has a plurality of pointers, into separate respective locations in said data store, connected with respective sockets, for sending data from said separate respective locations in said data store to said respective sockets and said respective users connected to said respective sockets; and

said server realigning a respective user with said data stream to change ~~the location in said data stream said user is receiving said data or~~ the time in the transmission in said data stream, said user is receiving said data, by moving said pointer for a respective socket to another location in said data store.

15. (canceled):

16. (canceled):

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17. (original): The system of Claim 1, further comprising:
means for signaling connected to said users for sending discrete respective signals to said server;
said server, responsive to said discrete respective signals, realigning a respective user with said data stream to change the relative position of said respective user to the data being transmitted in said data stream; and
wherein, said realignment is in discrete steps relative to position of said respective user to the data being transmitted in said data stream.
18. (original): The system of Claim 17, wherein, said discrete respective signals include signals for advancing or retarding said realignment of said respective position of said respective user.
19. (original): The system of Claim 17, wherein, said discrete respective signals include signals for realignment in discrete intervals.
20. (canceled):
21. (original): The system of Claim 19, wherein said discrete intervals are intervals of space displacement in the location of said data in said data stream.
22. (currently amended): The system of Claim ~~48~~ 1, wherein,
said server includes means for disconnecting a respective user with said respective data stream at an identifiable location in said respective data stream and for reconnecting said user to another data stream of ~~the said~~ at least one data stream.
23. (original): The system of Claim 22, wherein,
said server includes means for disconnecting said respective user with said another data stream after a discrete interval and reconnecting said user with said data stream at said identifiable location.

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24. (original): The system of Claim 23, wherein,
said server means for reconnecting said user with said data stream is a pointer for
accessing data in said data store at discrete locations.
25. (previously presented): A system comprising:
a server for transmitting user requested data in a data flow for reception by a plurality of
users requesting said data at substantially the same time;
said server having means for connecting said server to a telecommunications network for
the transmission of data; and
said server including means for responding to user requests for data; said user requests
being received from said telecommunications network, and for identifying the individual
requesters as the source of respective user requests for data and arranging said individual
requesters in respective groups for receiving said user requested data in a data stream, and
wherein said respective groups arranging said individual requesters for reception of said user
requested data in said respective data stream corresponding to a point of transmission of said
data flow by time of request or by number of requests, for transmission of the same user
requested data in said respective data stream to the respective users in respective groups, and
distributing the user load on said server and shifting said user load toward a steady state load on
the server by distributing said respective groups over the transmission of said data flow by time
of data stream transmission or by place in said data flow transmission.
26. (original): The system of Claim 25, wherein,
said groups are arranged by number of said individual requesters.
27. (original): The system of Claim 25, wherein,
said groups are arranged by the time of said requests.

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28. (currently amended): The system of Claim 25, wherein said server is limited to a maximum number of said groups; and ~~data processor~~ wherein said server arranges said groups in relation to said maximum number.

29. (original): The system of Claim 25, wherein said telecommunications medium is the Internet.

30. (original): The system of Claim 25, wherein said user's requests are received from a world wide web browser.

31. (previously presented): The system of Claim 25, wherein said server includes means for shifting said respective individual requesters between said groups to change the time of reception of said user requested data relative to said data stream transmission.

32. (previously presented): The system of Claim 25, wherein,
said user requested data is accessed from a data store communicatively coupled to the server; and

said server includes means for changing the location in the data store accessed for shifting the location of the user requested data relative to said data flow transmission.

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33. (currently amended): A method comprising the steps of:

receiving, at a server having a data store, user requests for transmission of user requested data in a data flow for reception by a plurality of users across a telecommunications medium;

responsive to said user requests, arranging said plurality of users in at least one group of recipients of said user requested data in said data flow with each user of the plurality of users being arranged in a respective group of said at least one group, and wherein each respective group for receiving said user requested data in a respective data stream corresponding to a point of transmission of said data flow; and

responsive to said user requests, sending said user requested data in a respective data stream from the data store of the server to the telecommunications medium, wherein each said respective data stream being destined for reception by said respective group of recipients, and realigning, at the server, a respective user from a first respective group corresponding to receiving user requested data at a first location in the respective data stream to a second respective group corresponding to receiving user requested data at a second location in the data stream, the second location being selected at the server to change the location in the data stream the respective user is receiving user requested data to any location in the data stream other than the first location in the data stream.

34. (currently amended): The method of ~~claim system~~ of claim 33, wherein said step of arranging includes the step of arranging said groups in relation to a maximum number of said groups said server can send said data.

35. (original): The method of Claim 33, including the step of sending said data through the Internet.

36. (original): The method of Claim 33, including the step of receiving said user's requests from a world wide web browser.

37. (original): The method of Claim 33, wherein, said step of arranging includes the step of realigning a respective user with said data stream to change the relative position of said

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respective user to the data being transmitted in said data stream, responsive to a signal from said respective user.

38. (original): The method of Claim 33, wherein, said step of arranging, arranges said users into said groups arranged by the size of said group.

39. (original): The method of Claim 33, wherein, said step of arranging, arranges said users into said groups arranged by a time interval for assembling said group.

40. (previously presented): The method of Claim 37, wherein, said data is transmitted with identifiable locations in said data stream, and the method further comprising the steps of:

identifying a respective identifiable location in said data stream corresponding to said user signal; and

moving said user to another of said groups receiving said data stream from a location in said data stream related to said respective identifiable location.

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41. (previously presented): In a system for transmitting data in a data stream sent from a server to a plurality of users requesting access to said data stream at substantially the same time, a method comprising the steps of,

a plurality of users receiving user requested data in a data flow by receiving at least one data stream sent from a server;

arranging said plurality of users into groups, comprising a first group and a second group, each of said groups for reception of a respective data stream transmitted from the server, each respective data stream corresponding to reception of user requested data at a point of transmission of said data flow; and

responding, at the server, to a request from one of the plurality of users that is in said first group by moving the one of the plurality of users from said first group to said second group for reception, by said one of the plurality of users, of user requested data at a point of said data flow relatively displaced in space or time from reception by said first group.

Claims 42-46. (canceled):

47. (currently amended): A computer program product for use in operating a computer, the computer program product including computer instructions comprising instructions for:

receiving requests for data from users, said data being organized for transmission in a data flow from a data store;

arranging said users in groups, wherein each of said groups corresponding to reception of user requested data in a data stream at a point of said data flow; and

responsive to said users' requests, sending said user requested data in at least one data stream from said data store to said groups with said groups receiving separate respective portions of said data relatively displaced in ~~space or time~~, and wherein the time in the transmission of said data stream said user is receiving said transmission

48. (New): A system for transmitting data in a data stream to grouped recipients, comprising:

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a server, for receiving users' requests for transmission of user requested data in a data flow for reception by said users;

said server for transmission of at least one data stream, and, responsive to said users' requests, for arranging said users in at least one group of recipients of a respective data stream of the at least one data stream, with each user being arranged in a respective group of the at least one group, and wherein each respective group for receiving said user requested data in said respective data stream corresponding to a point of transmission of said data flow; and

said server, responsive to the arrangement of said users in said at least one group, for transmitting said user requested data in said respective data stream to each said respective group, and wherein the server for realigning a respective user

from a first respective group corresponding to said respective user receiving user requested data being transmitted at a first location in the data flow at a first point in time

to a second respective group corresponding to said respective user receiving transmission of said user requested data being transmitted at the first location in the data flow at a second point in time, the second point in time being selected by the server to change the relative time the respective user is receiving the transmission of said user requested data being transmitted at the first location in the data flow.